

10567103

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

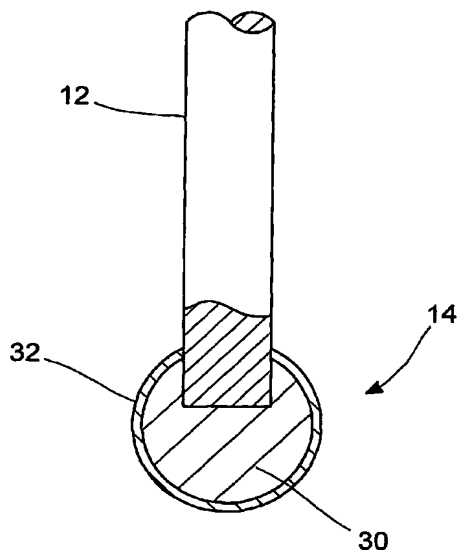
PCT

(10) International Publication Number  
**WO 2005/015121 A1**

- (51) International Patent Classification<sup>7</sup>: **G01B 5/016**, 7/016
- (21) International Application Number: PCT/GB2004/003402
- (22) International Filing Date: 6 August 2004 (06.08.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0318388.6 6 August 2003 (06.08.2003) GB
- (71) Applicant (for all designated States except US): RENISHAW PLC [GB/GB]; New Mills, Wotton-under-Edge, Gloucestershire GL112 8JR (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): LEWICKA-SCHAFER, Magdalena [GB/GB]; 44 Hopkins Close, Thornbury, Bristol South, Gloucestershire BS35 2PX (GB).
- (74) Agents: JACKSON, John, Timothy et al.; Renishaw plc, Patent Department, New Mills, Wotton-under-Edge, Gloucestershire GL12 8JR (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: STYLUS TIP FOR WORKPIECE CONTACTING PROBE



(57) Abstract: A stylus (12) for a workpiece contacting probe has a tip (14) which comprises a self-lubricating or low friction material, in order to inhibit debris generation or adhesive wear (pick up) as the tip scans a workpiece surface. Various materials are described, including composites having a solid state lubricant incorporated into a dimensionally stable microstructure. The tip (14) may be made entirely of such a composite, or may have a substrate (30) with a coating (32) of the self-lubricating or low friction material. Suitable materials are silicon carbide or silicon nitride containing free graphite hexagonal boron nitride, molybdenum sulphide or metallic tin, furthermore silicon carbide/nitride impregnated with PTFE, or annealed boron carbide.

WO 2005/015121 A1



**Declaration under Rule 4.17:**

— *of inventorship (Rule 4.17(iv)) for US only*

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*